CLAIMS

What is claimed is:

1. A method for performing a ciphering key change in a wireless communications system, the wireless communications system comprising:

a first station capable of transmitting a ciphering reconfiguration activation command, the ciphering reconfiguration activation command being used to change a ciphering key;

a second station capable of receiving the ciphering reconfiguration activation command and acknowledging reception of the ciphering reconfiguration activation command;

wherein the first station and the second station are capable of establishing communications through at least a channel, the first station using a signaling channel to transmit the ciphering reconfiguration activation command, the first station and the second station utilizing layer 2 protocol data units (PDUs) to effect communications, the PDUs being at least partially enciphered using a ciphering key;

the method comprising:

the first station executing a suspend function upon the signaling channel, the suspend function ensuring that the first station does not transmit PDUs to the second station along the signaling channel after a predetermined event;

the first station transmitting the ciphering reconfiguration activation command along the signaling channel prior to the predetermined event;

the second station receiving the ciphering reconfiguration activation command and sending an acknowledgment to the first station; and

the first station receiving the acknowledgment from the second station and canceling the suspend function so as to enable the first station to transmit PDUs to the second station along the signaling channel after the predetermined event;

wherein the first station and the second station use an old ciphering key prior to the predetermined event, and the first station and the second station use a new

ciphering key after the predetermined event, the ciphering reconfiguration activation command informing the second station of the ciphering key change to the new ciphering key.

2. The method of claim 1 wherein the ciphering reconfiguration activation command further informs the second station of the predetermined event so that the second station uses the new ciphering key after the predetermined event.

3. The method of claim 1 wherein the ciphering reconfiguration activation command is a layer 3 signaling message that is transmitted and received using layer 2 PDUs.

4. The method of claim 1 further comprising the step of the first station executing a suspend function upon every channel, each suspend function ensuring that the first station does not transmit PDUs to the second station along the corresponding channel after a corresponding predetermined event.

5. The method of claim 4 further comprising the step of the first station canceling the suspend function on each channel after receiving the acknowledgment from the second station so as to enable the first station to transmit PDUs to the second station along each channel after the corresponding predetermined event.

6. The method of claim 1 wherein each PDU comprises a sequence number and the predetermined event is a suspend value; wherein when the suspend function is active, the first station will not transmit a PDU along the signaling channel to the second station if the PDU has a sequence number that is sequentially on or after the suspend value.